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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,654	07/16/2003	John Joseph Rabasco	06326 USA	1421

23543 7590 05/02/2006

AIR PRODUCTS AND CHEMICALS, INC.  
PATENT DEPARTMENT  
7201 HAMILTON BOULEVARD  
ALLENTOWN, PA 181951501

EXAMINER
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TARAZANO, DONALD LAWRENCE

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/620,654	<b>Applicant(s)</b> RABASCO ET AL.	
	<b>Examiner</b> D. Lawrence Tarazano	<b>Art Unit</b> 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 2-16-2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION*****Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/16/2006 has been entered.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6-11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Daniels et al. (5,872,181).

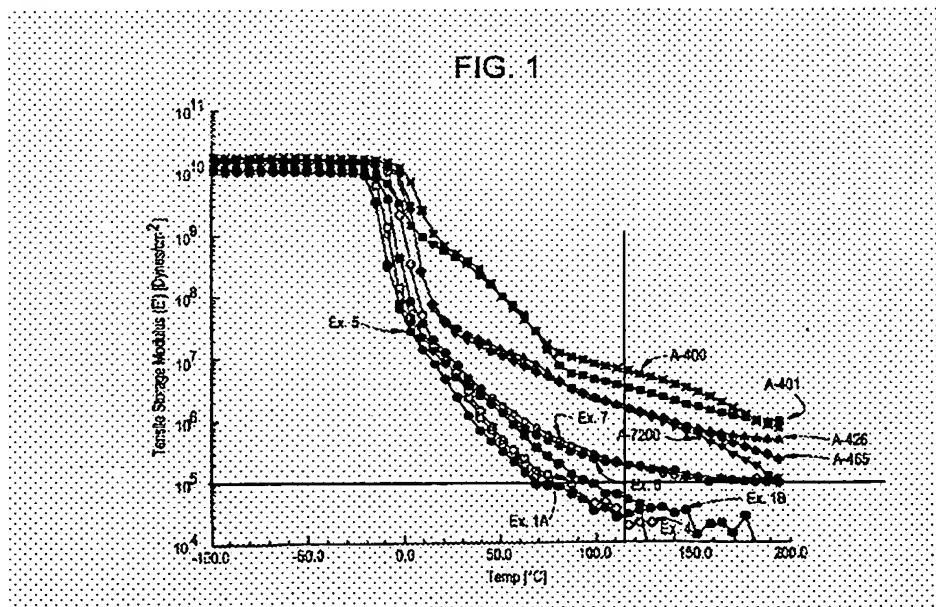


Figure 1, clearly teaches materials both commercial and working examples which have a storage modulus of greater than  $1 \times 10^5$  dynes /  $\text{cm}^2$ . The materials are bonded to cotton fabric (column 9, lines 15+), which is an example of a cellulose material as claimed. Specifically example 6 contains 65% vinyl acetate, 23% ethylene, and 3% acrylic acid. As described in example 2 (the general method used to make example 6), polyvinyl alcohol is present in the polymerization of the monomers.

Furthermore, Commercial Airflex™ materials (column 7, examples 8-12) also have the claimed storage modulus as shown in figure 1.

It appears that the have the heat of fusion and melting points claimed based on the materials and methods used to produce the polymers.

Specifically regarding the melting point of the polymers, there is clear reason to believe that the property would be inherent to the materials taught. First, the applicants claim a very broad range (35-110 deg C). Second the types of comonomers used and the amounts of them along with the polymerization conditions follow closely to the process used by the applicants.

4. Additional monomers may use present including N-methylol acrylamide (column 2, lines 65+) and the amount of monomers claimed is clearly within the range claimed (column 2, lines

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels et al.

(5,872,181)

7. Regarding 5,872,181, additional monomers may use present including N-methylol acrylamide (column 2, lines 65+).

8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used small amounts of N-methylol acrylamide in the polymers taught since this comonomer is suggested.

9. Regarding claim 5, the examiner takes the position that “about 50%” ethylene is suggested by the 45% ethylene suggested in the reference. The term “about” gives a certain amount of latitude to the reference.

10. Regarding claims 11-18, since the background of the invention of the patent states that it is conventional to coat pressure sensitive adhesives on paper to make paper labels etc... It would have been obvious to one having ordinary skill in the art to have used either commercial products or the materials taught by Daniels et al. to coat paper or cardboard with them to make adhesive structure.

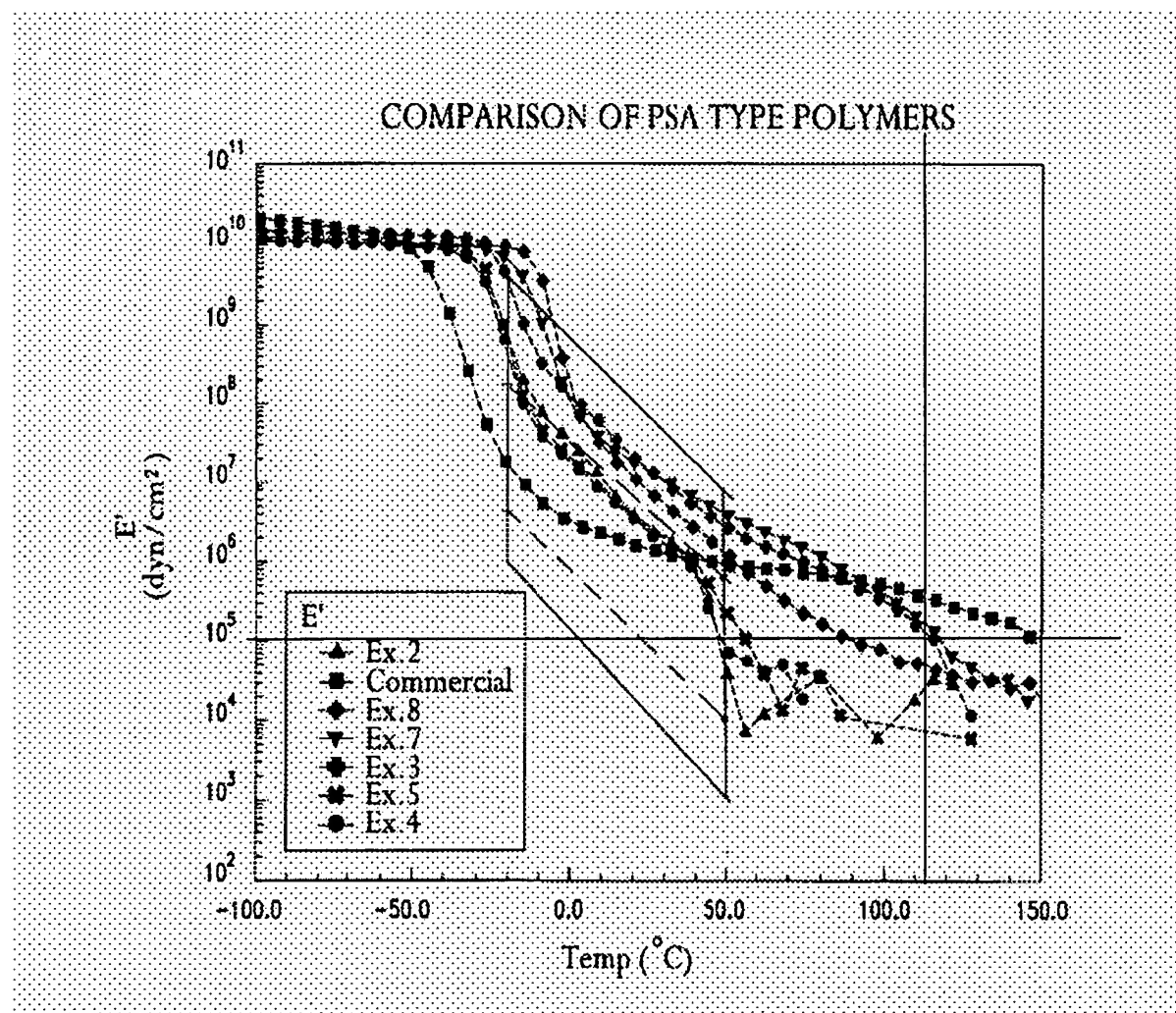
11. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels et al.

(6,316,978).

12. US 6,316,978 clearly teaches polymers having the claimed storage modulus, while there are no examples showing the polymers coated on paper or other cellulose material, they disclose that pressure sensitive adhesives are widely use in the fabrication of “paper labels” (column 1, lines 11+).

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13. Regarding claims 1-18, since the background of the invention of the patent states that it is conventional to coat pressure sensitive adhesives on paper to make paper labels etc... It would have been obvious to one having ordinary skill in the art to have used either commercial products or the materials taught by Daniels et al. to coat paper or cardboard with them to make adhesive structure.



14. Claim 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

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Daniels et al. (5,872,181 or 6,316,978) as discussed above in view of Worrall (3,355,322).

15. Worrall teaches that copolymers used to coat cellulose can contain 20-70% ethylene and 80-30% vinyl acetate (column 1, lines 41+).

16. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have 50-70% ethylene and the corresponding amounts of other monomers in the materials taught by Daniels et al. for coating paper substrates.

### ***Response to Arguments***

Applicant's arguments filed 08/15/2005 have been fully considered but they are not persuasive. The applicants claim materials, which have a crystalline melting point ranging from 35 to 110 degrees C and a storage modulus of at least  $1 \times 10^5$  dynes/cm<sup>2</sup>.

The applicants argue that the prior art materials do not have the claimed properties. The applicants state that "the properties of the claimed polymer are differed from those in the prior art cited by the Examiner, the claim language should put on notice in an analysis under 35 U.S.C. 102(b) that the Applicants' claimed parameters... are relevant for differentiating the polymers from the prior art."

It is true that it is the applicants' responsibility file the broadest claims to which they may be entitled and that applicant may claim his invention using what ever means best defines his invention.

MPEP 2112.01: Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant

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has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

In this instance the examiner has clearly pointed out where the prior art has the claimed storage modulus, that the materials are coated on cellulose materials, and provided reasons why the prior art materials would have the claimed melting point.

The recitations in the claim related to the polymerization conditions are merely taken as process limitations in an article claim.

Process limitations in claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. " *In re Thorpe* , 227 USPQ 964, 966 (Fed. Cir. 1985).

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433. See also *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

The thrust of the cited patents is to show materials, which have low storage modulus. Daniels et al. (5,872,181) claim materials having a low storage modulus, but within the teachings of the reference are comparative and working examples having the claimed storage modulus.

It is not common to characterize ethylene vinyl acetate polymers in terms of their storage modulus. The examiner scoured the prior art to find materials, which had been characterized in these terms. During the search of the prior art the examiner found a number of patents, which cited this feature. The instant claims were rejected over these materials.



Since a number of comparative materials were commercial products and these products had the claimed storage modulus, the examiner felt that information was material to the patentability of the claimed invention.

MPEP 2112: "[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977).

In this instance the examiner has reviewed the two declarations provided. In Mr. Christian Daniels's declaration (sections 9 and 10), he states "...none of the claimed vinyl acetate /ethylene polymers were observed to have ethylene crystallinity having a melting point from 35 to 110° C..." The examiner wishes clarification on this statement. The rejection the examiner set forth was not based on the claims of the patents in question, but on working examples and comparative examples having the a modulus within the claimed range. The applicant's declarations, while helpful, fail to compare the closest prior art to the claimed materials, and therefore are not convincing. In order to rebut the examiner's assertion of inherency, it would be more useful to specifically select examples / comparative examples, which have the claimed modulus and then show that they fail to have the claimed melting points.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Lawrence Tarazano whose telephone number is (571)-272-1515. The examiner can normally be reached on 8:30 to 6:00 (off every other Friday).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571)-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Lawrence Tarazano  
Primary Examiner  
Art Unit 1773

A handwritten signature in black ink, appearing to be 'DLT' with a checkmark-like flourish at the end.